

MICHIGAN DEPARTMENT OF CONSERVATION
Game Division

Report No. 2343
June 2, 1961

NORTH MANITOU ISLAND DEER
1960-61

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A total of 224 deer were taken by hunters on North Manitou Island in the fall of 1960. This is somewhat less than the 243 taken in 1959 or the average of approximately 255 during the last eight years.

Weights of both bucks and does increased slightly over a year ago and deer seem to be as plentiful as ever. Island Manager, Marvin Fluelling, again aged the deer that were killed. The age and weight distribution of both bucks and does is given in the charts attached.

This past winter--1960-61--was one of the lightest on record. Temperatures were about normal with a number of sub-zero periods but snow depths were sufficiently light so that deer were relatively unrestricted and could move about all over the island all winter.

The deer feeding operations were again conducted as during the past few years. Thirty-four feed troughs were distributed about the island in the same general locations as before. Some feed was put out to bait deer for the hunters beginning in early October. Normal feeding was started in mid-December and continued through April 24, a full two weeks after the breakup. Deer seemed to be taking food even after the snow was gone, possibly because of the relatively late greening-up of the vegetation.

Browsing pressure on natural foods continued heavy and seemed to be increasing on beech. Where previously beech was heavily browsed mainly in the vicinity of food troughs, this spring there was greater evidence of increased browsing on beech reproduction throughout the island.

Timber cutters on the north end reported an increase in browsing pressure on the tree tops. This may have been due to the decreased amount of timber cut during the winter. Browsing on ground juniper continues heavy with the old big bushes practically killed-out but many young bushes growing in. All are still browsed off at the snow line.

Manager Fluelling had some trouble with the deer food pellets going to pieces in wet weather. It was found that the manufacturing company was using a new machine which did not sufficiently compress the ingredients to produce a good solid pellet. Twenty tons were replaced by the company to make up for the loss. Approximately 60 tons of pellets were fed this winter as has been the custom during the past few years. The feeding program followed the same pattern as before--100 pounds per trough twice a week.

The regular island crew in late April searched the most likely portions of the island for dead deer and found only six. Searches made while Kellum and myself were on the island (May 8-9-10) increased this total to ten.

This is by far the lightest loss for this amount of searching ever reported on the island. Of the ten, two were known to have been deer wounded the previous fall; one was a blind deer killed intentionally; two, the cause of death unknown but not food shortage. The other five were thought to have perished either because they were too small to get to the feed boxes or had not found the food. It probably would be erroneous to call these five "starved deer" since in general deer could move freely about the entire island. A more correct designation probably would be just plain "winter losses." From the areas searched and the number found, the actual "winter losses" may not exceed ten deer, with the loss from all causes possibly 20.

The creeping juniper on the southeast part of the island continues to recover from old heavy browsing although it shows signs of having been hit hard this last winter, probably because much of it was exposed due to the light snow fall.

Light losses this year should not be construed as an indication that the kill of 224 deer had balanced the herd with the range. Actually losses were light only because of the mild winter (the most mild winter in years). From past experience the light kill coupled with a normal or severe winter would have resulted in much heavier winter losses. The light hunting kill, the light winter loss, resulting in a high "carry-over" of deer, plus an anticipated good fawn crop this spring presages a larger than usual herd next fall. Therefore, the 1961 kill should be increased in proportion, to prevent greater losses next winter, and to reduce the deer pressure on the available winter food.

The "deer exclosure" erected during the summer of 1960 already shows a change. There are many more raspberry bushes within the fence than outside after only part of one growing season. Further changes, especially in young tree growth, are expected to develop as natural growth continues unbrowsed, within the protection of the fence, while growth outside is subject to normal browsing.

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AGE COMPOSITION OF THE 1960 KILL*

Age	Males		Females	
	Number	Percent	Number	Percent
6 months	4	03	8	08
1½ years	53	43	22	22
2½ years	34	27	36	36
3½ years	21	17	16	16
4½ years	7	06	2	02
Over 4½ years	5	04	15	15
Total aged	124	99	99	100
Unaged	1	01		
Total	125	100	99	100

*Age composition of the 1960 kill as determined by Island Manager Marvin Fluelling.

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WEIGHTS AND AGE OF DEER KILLED
ON NORTH MANITOU ISLAND

October, 1960 thru January, 1961

<u>MALES</u>					<u>FEMALES</u>				
50 6 Mo.	97 1½	115 1½	129 2½	145 3½	44 6 Mo.	100 1½	104 2½	115 3½	
50	99	116	129	151	45	101	104	116	
55	100	116	131	155	50	105	105	118	
57	100	119	133	159	50	113	105	123	
	100	120	134	166	50	119	105		
	101		135	170	53		105	108 4½	
64 1½ Yr.	101	72 2½	135	179	57	90 2½	106	110	
82	101	94	137		60	93	107		
82	102	97	140	103 4½		93	107	110 5½	
83	102	100	140	115		93	109	111	
84	102	100	147	131	71 1½ Yr.	95	111	119	
85	103	102	159	137	80	96	115	121	
86	104	102	176	140	80	97	116	128	
86	104	104		140	82	97	116		
86	105	105	97 3½	145	82	98	130	113 6	
86	105	108	109		83	100			
89	105	110	114	171 5½	84	100	92 3½	103 8	
90	105	117	119	176	85	100	95	103	
93	105	119	120		86	100	97	104	
93	106	121	121	143 8	87	101	97	106	
94	107	123	125	160	89	101	100	112	
94	109	124	129	178	91	102	100	113	
95	110	125	129		93	102	107	123	
95	110	125	132	120 --	97	102	109		
96	111	125	134		100	103	111	118 9	
96	112	128	138		100	103	111		
97	114	129	141		100	103	112	95 10	
			145				114		

Total Wt. 14,366 -- 125 males

Total Wt. 9,765 -- 99 females

<u>Males</u>	<u>Number</u>	<u>Percent of weighed total kill</u>	<u>Average Weight</u>
Fawns	4	02	53.0
Adults	<u>121</u>	<u>54</u>	<u>117.0</u>
Total Males	125	56	114.9
<u>Females</u>			
Fawns	8	04	51.1
Adults	<u>91</u>	<u>41</u>	<u>102.8</u>
Total females	99	44	98.6
Total Deer	224	100	107.7

NORTH MANITOU ISLAND DEER

DEER HUNTING KILL, STARVATION, AND OTHER LOSSES

Year	WINTER LOSSES*		HUNTING KILL					Unident- ified	Total
	Sample Count	Estimated Total	Adult		Fawn				
			Males	Females	Males	Females			
1937	5	10	15	1		2		18	
1938			25	12	2	2		41	
1939	5	10	40	5				45	
1940			55	29	8	3		95	
1941	8	20	91	40	4	4		139	
1942	25	50	91	70	11	4		176	
1943	32	50	89	116	39	48		292	
1944	20	50	155	104	20	23		302	
1945	4	10	33	9	6	2		50	
1946	22	50	113	23	2			138	
1947	164	300	133	58	7	4		202	
1948	47	100	77	41	1	1		120	
1949	25	50	117	52	5			174	
1950	116	200	112	75	4	5		196	
1951	37	70	78	127	10	13		228	
1952	20**	75	83	139	23	29		274	
1953	9	30	68	120	27	23		238	
1954	27	100	152	113	13	11		289	
1955	7	50	138	135	7	6		286	
1956	43	70	94	116	21	14		245	
1957	3	20	139	84	20	11	12***	266	
1958	17	40	134	75	11	8	5	233	
1959	72	100****	149	80	10	4		243	
1960	46	75	121	91	4	8		224	
1961	10	20							
Total	764	1,550	2,302	1,715	255	225	17	4,514	

* Approximately 80% due to lack of sufficient food (many could not get to it), about 20% due to crippling during hunt, and other causes.

** Reported by Hadra as having been seen in vicinity of feeding stations. No extensive searches were made.

*** Eight males and four females killed but not weighed or aged.

**** Readjusted

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NORTH MANITOU ISLAND DEER MORTALITY

22 SQUARE MILES

